IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Muraguchi et al.

Serial No. (not assigned) Examiner (not assigned)

Filed concurrently herewith Art Unit (not assigned)

For POLARIZING FILTER AND OPTICAL DEVICE USING THE SAME

Assistant Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Prior to calculation of the filing fee, Applicant wishes to amend the application as follows:

In the Claims:

Please amend claims 3-6, 9 and 10 as follows (a marked up version of claims 3-6, 9 and 10 being appended hereto):

3. A polarizing filter according to Claim 1, wherein one to four layers of dielectric thin films selected from said first group and one to four layers of dielectric thin films selected from said second group are laminated alternately on said transparent flat substrate.

4. A polarizing filter according to Claim 1, wherein a refractive index difference with respect to the wavelength of incident light between adjacent dielectric thin films selected from the dielectric materials belonging to said first and said second groups respectively is in a range of from 0.15 to 1.2, both inclusively.

5. A polarizing filter according to Claim 1, wherein optical film thickness of each of said dielectric thin films is in a range of $0.25\lambda \pm 0.15\lambda$ in which λ is a wavelength of incident light.

6. An optical device using a polarizing filter defined in Claim 1, wherein an angle of incidence on said polarizing filter is in a range of from 20 to 70 degrees.

9. A polarizing filter according to claim 7, wherein a total number of at least three layers is not larger than seven.

10. A polarizing filter according to claim 7, wherein the first refractive index is 1.62 to 1.46.

REMARKS

The amendment avoids multiple dependent claim language and does not introduce new matter.

Please proceed to examination on the merits.

Respectfully submitted,

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Marked-Up Version of the Claims

Claim 3 (once amended). A polarizing filter according to Claim 1 [or 2], wherein one to four layers of dielectric thin films selected from said first group and one to four layers of dielectric thin films selected from said second group are laminated alternately on said transparent flat substrate.

Claim 4 (once amended). A polarizing filter according to Claim 1 [or 2], wherein a refractive index difference with respect to the wavelength of incident light between adjacent dielectric thin films selected from the dielectric materials belonging to said first and said second groups respectively is in a range of from 0.15 to 1.2, both inclusively.

Claim 5 (once amended). A polarizing filter according to Claim 1 [or 2], wherein optical film thickness of each of said dielectric thin films is in a range of $0.25\lambda \pm 0.15\lambda$ in which λ is a wavelength of incident light.

Claim 6 (once amended). An optical device using a polarizing filter defined in Claim 1 [or 2], wherein an angle of incidence on said polarizing filter is in a range of from 20 to 70 degrees.

Claim 9 (once amended). A polarizing filter according to claim 7 [or 8], wherein a total number of at least three layers is not larger than seven.

Claim 10 (once amended). A polarizing filter according to claim 7 [or 8], wherein the first refractive index is 1.62 to 1.46.